

**LEGEND**

- □ AREA LUMINAIRE ON POLE CW CONCRETE BASE.
- BOLLARD LUMINAIRE
- WALL PACK
- DECORATIVE WALL SCENCE

**GENERAL SHEET NOTES**

- PHOTOMETRIC DATA POINTS ARE PROVIDED IN FOOTCANDLES (FC). ANALYSIS PERFORMED BY SIGNED (PHILIPS) IN 3032 WITH 0.9 LIGHT LOSS FACTOR (LLF).
- CITY OF OWEN SOUND ZONING BY-LAW 2010-078 UPDATED JUNE 2017. 5.23 LIGHTING & LANDSCAPING OF PARKING AND LOADING AREAS. A) WHERE LIGHTING FACILITIES ARE PROVIDED IN CONJUNCTION WITH ANY OFF-STREET PARKING OR LOADING AREA, NO PERSON SHALL ARRANGE SUCH LIGHTING SUCH THAT EXCESSIVE LIGHT AND GLARE IS DEFLECTED ONTO ADJOINING PROPERTIES.
- HORIZONTAL ILLUMINATION DESIGN CRITERIA: MARRIOTT TOWNEPLACE SUITES DESIGN STANDARDS 2017:
  - SITE AREAS - GENERAL - MIN 1 FC MAINTAINED.
  - PATHWAYS - MIN 2 FC MAINTAINED.
  - WALKWAYS - MIN 2 FC MAINTAINED.
  - PARKING LOT - MIN 2 FC MAINTAINED.
  - \*PROVIDE AVERAGE LIGHTING LEVEL OF 2 FC, GENERALLY APPLIES TO WALKS, DRIVEWAYS, PARKING LOTS, SERVICE AREAS, STEPS AND RAMPS.\*
- LIGHTING CORRELATED COLOUR TEMPERATURE (CCT) DESIGN CRITERIA: MARRIOTT TOWNEPLACE SUITES DESIGN STANDARDS 2017:
  - \*LIGHTING TYPE: PROVIDE 100% DOWNSHIELD AND LAMPS HAVING UNIFORM SOFT WHITE OR 3000 K COLOUR RANGE (NOT ORANGE) COLOUR: METAL HALIDE OR LED LIGHTING IS PREFERRED.
- OTHER LIGHTING NOTES FROM MARRIOTT TOWNEPLACE SUITES DESIGN STANDARDS 2017:
  - LOCATION: CENTER LIGHT POLES ON PARKING LOT STRIPES AND SET BACK 1.2 METRES (4 FT.) MINIMUM TO MINIMIZE POSSIBLE DAMAGE FROM GUEST VEHICLES.
  - PARKING LOT LIGHTS: MOUNT LIGHT FIXTURES NOT TO EXCEED 9 METRES (30 FT.) IN HEIGHT.
  - LIGHT POLE STANDARDS: BASES: 100 mm (4 INCH) HIGH MINIMUM BUT NOT TO EXCEED 305 mm (12 INCH) HIGH ABOVE GRADE.
  - ENTRY / ACCESS DRIVEWAY: PROVIDE LIGHT FIXTURES ON 3 METRES (10 FT.) HIGH POLES ALONG THE DRIVEWAY.
- EXTERIOR LIGHTING MANUFACTURER TO SUBMIT PHOTOMETRIC ANALYSIS PLAN OF PROPOSED LUMINAIRES SHOWING DELIVERED LIGHT LEVELS (MEASURED IN FOOTCANDLES), AND DEMONSTRATING MUNICIPALITY COMPLIANT LIGHT TRESPASS.
- UNDERGROUND LIGHTING CONDUCTORS MINIMUM #6 AWG.
- CITY OF OWEN SOUND ENGINEERING SERVICES DIVISION, SITE PLAN REVIEW COMMENT DATED 06 FEB 2019: "THE PROPOSED ON-SITE LED LIGHTING SHOULD BE SPECIFIED WITH A COLOUR TEMPERATURE (CCT) OF 3000 (WARM WHITE) WHERE POSSIBLE."

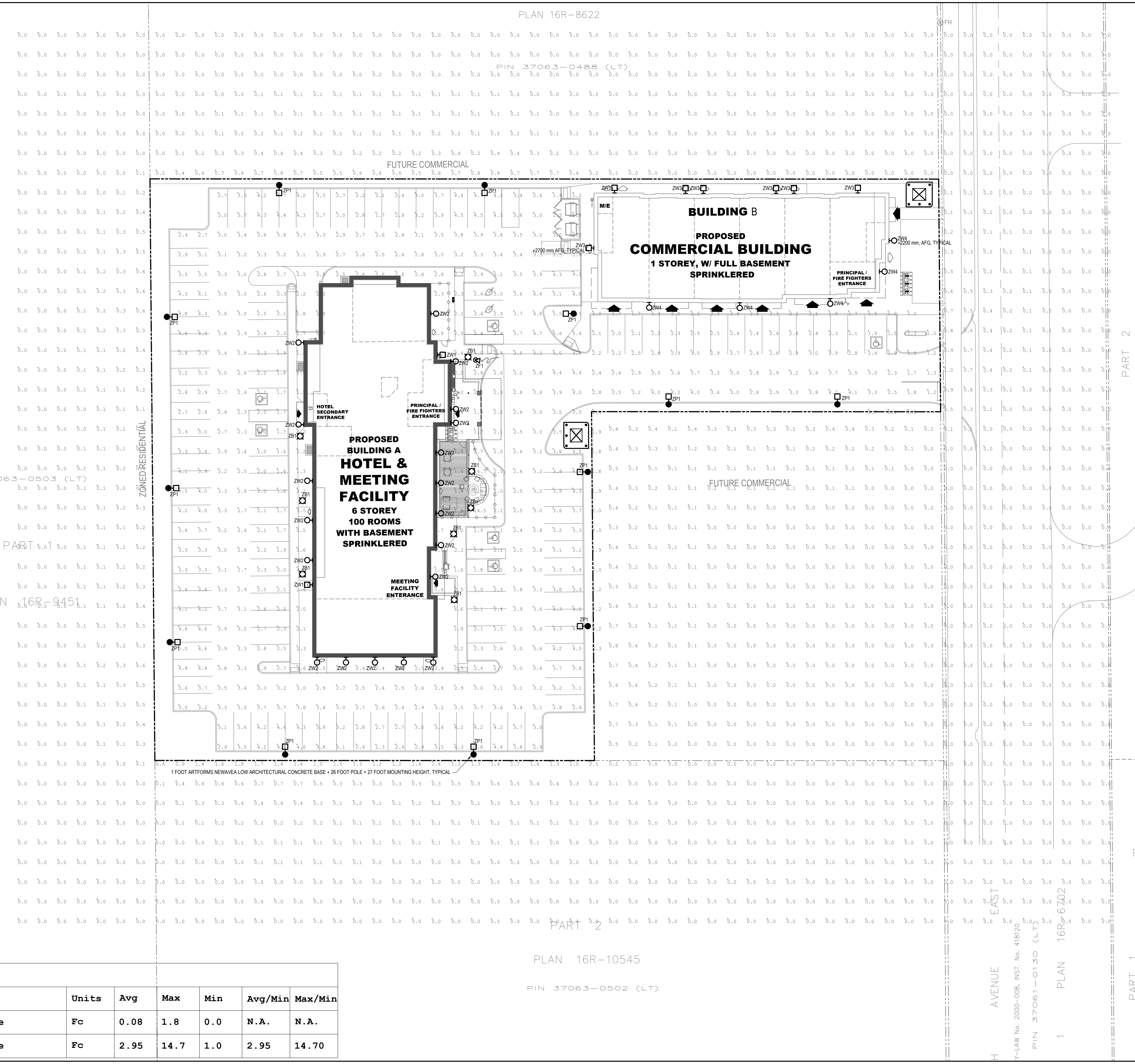
**LUMINAIRE SCHEDULE**

- ZB1 LED BOLLARD, 36 INCH SHAFT HEIGHT, TYPE V CONE OPTIC. PHILIPS HADCO RFL LED BOLLARD SERIES. RFL-AKF-10-WA SERIES. 120 VOLT, 25 WATT INPUT, 802 LUMENS, 3000 K CCT. BUG RATING B0-U3-G1. ALUMINIUM 6 INCH BOLLARD, GREY FLAT TOP. REFERENCE: MARRIOTT TOWNEPLACE SUITES LIGHT FIXTURE MATRIX TYPE Z50. - SUBSTITUTION LISTED IN MARRIOTT TOWNEPLACE SUITES STANDARDS.
- ZF1 ON GRADE MOUNTED FLOOD LIGHT TO UPLIGHT FLAG POLE. DISTRIBUTIONS AND LUMEN PACKAGES TO BE CONFIRMED. PHILIPS GARDCO CLEARSCAPE LED SERIES. CSFM SERIES. EXACT SPEC TBD, FINISH COLOUR TBD. 120 V. INPUT WATTS TBD, LED LUMEN PACKAGE TBD, 3000 K CCT. NOTE: NO STANDARD LUMINAIRE IN MARRIOTT TOWNEPLACE SUITES LIGHT FIXTURE MATRIX. LED AREA LUMINAIRE ON 26 FOOT HIGH, 5 INCH SQUARE METAL POLE, TYPE 4 DISTRIBUTION AND HOUSE SIDE SHIELD. CONCRETE FOUNDATION 12 INCHES ABOVE FINISHED GRADE. PHILIPS ECOFORM SMALL SERIES. LUMINAIRE: ECF-S640-1A-WW-Q2-4HS. 120 VOLT, 3000 K CCT, 265 W INPUT WATTS, 19636 LUMENS. B-U-G RATING B1-U3-G4. POLE: PHILIPS GARDCO SS825-5-11-D1-BRP. BRONZE LUMINAIRE AND POLE FINISH. REFERENCE: MARRIOTT TOWNEPLACE SUITES LIGHT FIXTURE MATRIX TYPES Z61 AND Z62. - SUBSTITUTION LISTED IN MARRIOTT TOWNEPLACE SUITES STANDARDS. SERIES POLE. CONFIRM POLE PART NUMBER TO SUIT DESCRIPTION ON PLANS.
- ZW1 LED WALL PACK. PHILIPS LPW7-8BZ. BRONZE TEXTURED PAINT FINISH. 1154 LUMENS, TYPE 2 DISTRIBUTION, 120 VOLT, 4000 K CCT, 14 IN INPUT WATTS. B-U-G RATING B1-U3-G1. PHILIPS LPW7 SERIES NOT AVAILABLE IN 3000 K CCT. REFERENCE: MARRIOTT TOWNEPLACE SUITES LIGHT FIXTURE MATRIX TYPE Z29. - SUBSTITUTION LISTED IN MARRIOTT TOWNEPLACE SUITES STANDARDS. MOUNTING HEIGHT: 8 FEET ABOVE FINISHED GRADE.
- ZW2 DECORATIVE LED EXTERIOR WALL SCENCE. EATON SHAPER 673-16-W-L3830-UM-BM-ZV7B-PC-BC. 2000 LUMEN, 20 INPUT WATTS. REFERENCE: MARRIOTT TOWNEPLACE SUITES LIGHT FIXTURE MATRIX TYPE Z46. NOTE: LUMINAIRE NOT CONSIDERED IN PHOTOMETRIC ANALYSIS. - NO SUBSTITUTION LISTED IN MARRIOTT TOWNEPLACE SUITES STANDARDS. MOUNTING HEIGHT: 8 FEET ABOVE FINISHED GRADE TO 4' OF FIXTURE.
- ZW3 LED WALL PACK FOR COMMERCIAL BUILDING B'. PHILIPS PW15-NW-G1-8-BZ. 1656 LUMEN, TYPE 2 DISTRIBUTION, 120 VOLT, 4000 K CCT, 15 INPUT WATTS. B-U-G RATING B1-U3-G1. PHILIPS PW15 SERIES NOT AVAILABLE IN 3000 K CCT. NOTE: LUMINAIRE NOT CONSIDERED IN PHOTOMETRIC ANALYSIS.
- ZW4 DECORATIVE LED EXTERIOR WALL SCENCE. SIMILAR TO TYPE ZW2 FOR COMMERCIAL BUILDING B'. NOTE: LUMINAIRE NOT CONSIDERED IN PHOTOMETRIC ANALYSIS.

- NOTES:**
- ACCEPTABLE MANUFACTURERS: NO ALTERNATES UNLESS APPROVED BY THE CITY OF OWEN SOUND PRIOR TO START OF CONSTRUCTION. CONTRACTOR/MANUFACTURER TO SUBMIT PHOTOMETRIC CALCULATION DEMONSTRATING COMPLIANCE WITH ALL MUNICIPALITY LIGHTING GUIDELINES. MARRIOTT STANDARD EXTERIOR LIGHTING MANUFACTURERS ARE PHILIPS AND EATON.
  - WHERE AN INCOMPLETE MODEL CAT NO. IS LISTED, MANUFACTURER/SUPPLIER MUST CONFIRM THE PROPOSED FIXTURE WITH THE CONSULTANT A MINIMUM OF ONE WEEK PRIOR TO TENDER CLOSE.
  - WHERE NOTED ABOVE THAT FIXTURES ARE TO HAVE FINISH TO SUIT ARCHITECT THE FINISH WILL BE SELECTED FROM MANUFACTURER'S OPTIONAL COLOUR CHART (I.E. RAL COLOURS OR EQUAL). PROVIDE THIS COLOUR CHART WITH SHOP DRAWINGS SUBMITTAL.
  - SUBMIT SHOP DRAWINGS FOR CONSULTANT'S REVIEW PRIOR TO PLACING ANY ORDER.
  - SEQUENCE OF OPERATION. EACH LUMINAIRE SHALL BE CONTROLLED BY A PHOTOCELL DEVICE THAT AUTOMATICALLY TURNS OFF THE LIGHTING WHEN SUFFICIENT DAYLIGHT IS AVAILABLE. (ASHRAE 90-1.2013 9.4.1.4.a.)

**Calculation Summary**

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
<b>LIGHT SPILL</b>	<b>Illuminance</b>	<b>Fc</b>	<b>0.08</b>	<b>1.8</b>	<b>0.0</b>	<b>N.A.</b>	<b>N.A.</b>
<b>SITE</b>	<b>Illuminance</b>	<b>Fc</b>	<b>2.95</b>	<b>14.7</b>	<b>1.0</b>	<b>2.95</b>	<b>14.70</b>



PLAN 16R-8622

PIN 37063-0488 (LT)

PLAN 16R-10545

PIN 37063-0502 (LT)

NOT FOR TENDER  
NOT FOR CONSTRUCTION

No.	DATE	DESCRIPTION	DWN	CH'D
8	14 JUNE 2019	REISSUED FOR SITE PLAN APPROVAL	CB	CB
7	10 MAY 2019	ISSUED SITE PLAN APPROVAL	CB	CB
6	03 MAY 2019	ISSUED FOR HOTEL BUILDING PERMIT	MI	MI
5	22 MAR 2019	HYDRO ONE COORDINATION	CB	CB
4	21 FEB 2019	ISSUED FOR SITE PLAN APPROVAL	CB	CB
3	03 DEC 2018	REVISED FOR SITE PLAN APPROVAL	CB	CB
2	30 NOV 2018	REVISED FOR SITE PLAN APPROVAL	CB	CB
1	20 NOV 2018	PHOTOMETRIC FOR SITE PLAN APPROVAL	CB	CB

DESTROY ALL PRINTS DATED PREVIOUS TO FINAL DATE ABOVE.

**REVISIONS**

THIS DRAWING SHALL ONLY BE USED WHEN SIGNED FOR THE PURPOSE SPECIFIED BELOW.

CONSTRUCTION	TENDER	PERMIT	FOR	DATE	ISSUED BY

**SUBMISSIONS**

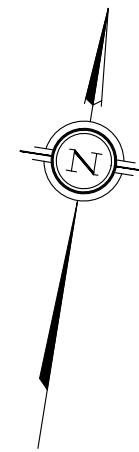
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THESE DRAWINGS ARE THE PROPERTY OF THE ENGINEER AND MUST BE RETURNED AT COMPLETION OF WORK OR UPON REQUEST.

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PROJECT		
MARRIOTT TOWNEPLACE SUITES AND COMMERCIAL / OFFICE BUILDING		
1200 16th AVENUE EAST OWEN SOUND, ON		
TITLE		
SITE LIGHTING PHOTOMETRIC ANALYSIS PLAN		
DRAWN	CHECKED	PROJECT No.
CB	CB	HP-18-355
SCALE	DRAWING No.	
AS SHOWN	ES101	





PLAN 16R-8622

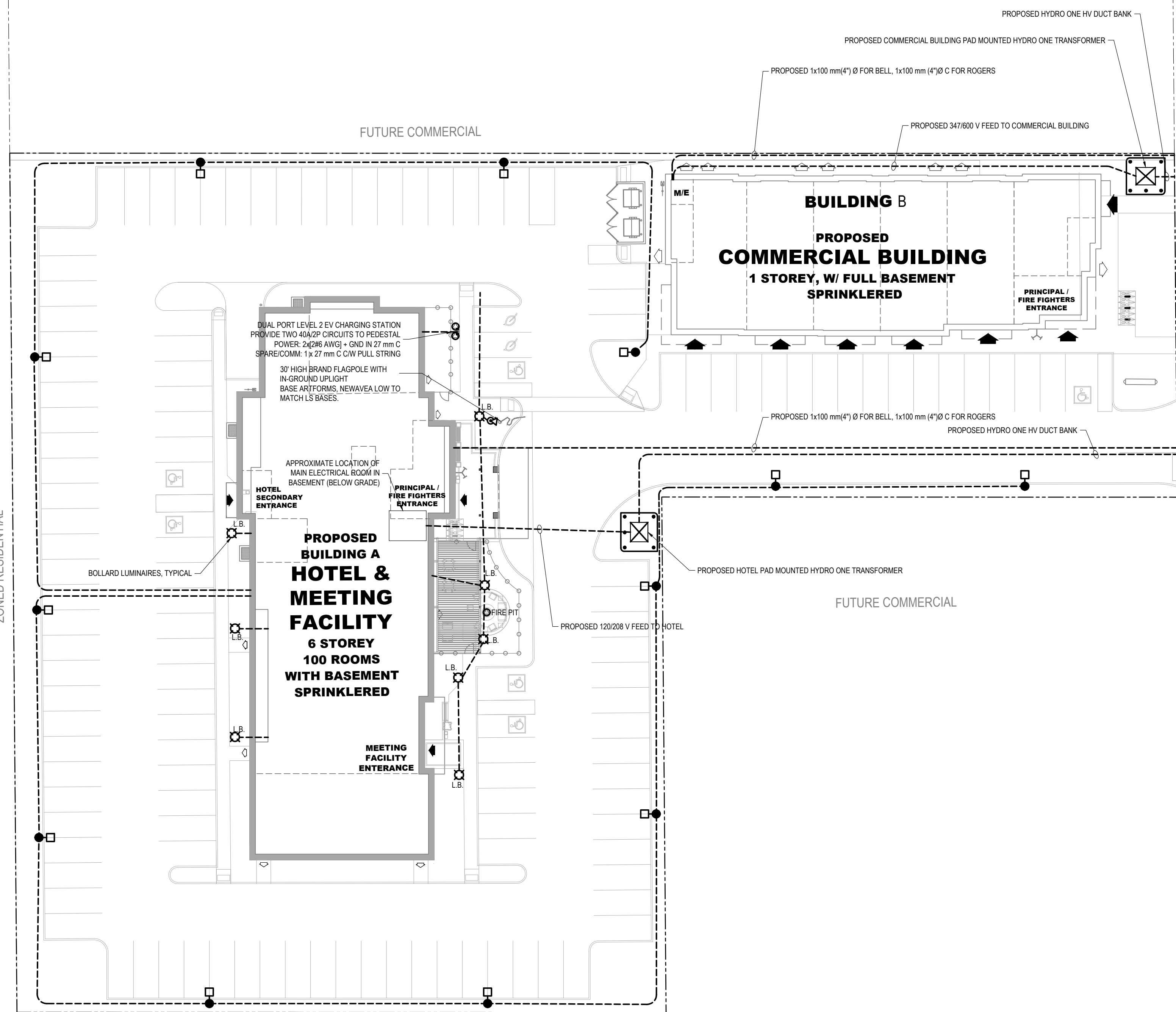
PIN 37063-0488 (LT)

PIN 37063-0503 (LT)

PART 1

PLAN 16R-9451

ZONED RESIDENTIAL



PART 2

PLAN 16R-10545

PIN 37063-0502 (LT)

AVENUE EAST

PLAN 16R-6702

PART 1

PART 2

SITE ELECTRICAL AND TELECOMMUNICATIONS SERVICES UNDERGROUND PLAN 1  
SCALE: 1:300 ES102

NOT FOR TENDER  
NOT FOR CONSTRUCTION

No.	DATE	DESCRIPTION	DW'N	CH'D
8	14 JUNE 2019	REISSUED FOR SITE PLAN APPROVAL	CB	CB
7	10 MAY 2019	ISSUED SITE PLAN APPROVAL	CB	CB
6	03 MAY 2019	ISSUED FOR HOTEL BUILDING PERMIT	MI	MI
5	22 MAR 2019	HYDRO ONE COORDINATION	CB	CB
4	21 FEB 2019	ISSUED FOR SITE PLAN APPROVAL	CB	CB
3	03 DEC 2018	REVISED FOR SITE PLAN APPROVAL	CB	CB
2	30 NOV 2018	REVISED FOR SITE PLAN APPROVAL	CB	CB
1	20 NOV 2018	PHOTOMETRIC FOR SITE PLAN APPROVAL	CB	CB

DESTROY ALL PRINTS DATED PREVIOUS TO FINAL DATE ABOVE.

REVISIONS		
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CONSTRUCTION	FOR	DATE
TENDER		
PERMIT		ISSUED BY

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**QUASAR**  
CONSULTING GROUP

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14 JUNE 2019  
LICENSED PROFESSIONAL ENGINEER  
**C. K. BORCSOK**  
100123244  
PROVINCE OF ONTARIO

PROJECT  
**MARRIOTT TOWNEPLACE SUITES  
AND  
COMMERCIAL / OFFICE BUILDING**  
1200 16th AVENUE EAST  
OWEN SOUND, ON

TITLE		
SITE POWER PLAN		
DRAWN	CHECKED	PROJECT No.
CB		HP-18-355
SCALE	DRAWING No.	
AS SHOWN	ES102	